

## **IN THE CLAIMS:**

1. (Currently Amended): A method for preventing premature shutdown of a virtual machine, comprising the steps of:

starting a waiter thread in the virtual machine;

registering daemon threads in a queue managed by the waiter thread;

monitoring, by the waiter thread, the daemon threads running in the virtual machine by the waiter thread registered in the queue managed by the waiter thread; and

preventing shutdown of the virtual machine so long as any of the monitored daemon threads are running in the virtual machine.

2. (Canceled)

3. (Currently Amended): The method as recited in claim [[2]] 1, further comprising the step of:

responsive to a first daemon thread becoming inactive, searching for other inactive daemon threads registered in the queue.

4. (Currently Amended): The method as recited in claim [[2]] 1, further comprising the step of:

~~responsive to a new daemon thread being created, appending the new daemon thread to the end of the queue.~~

5. (Currently Amended): The method as recited in claim [[2]] 1, further comprising the steps of:

determining whether the queue is empty; and

if the queue is empty, ~~waiting for the virtual machine to shut down or for a new daemon thread to be created~~ terminating the waiter thread.

6. (Currently Amended): The method as recited in claim 5, ~~further comprising the step of:~~

~~if a new daemon thread is created, adding the new daemon thread to the queue wherein the virtual machine shuts down in response to termination of the waiter thread.~~

7. (Original): The method as recited in claim 1, wherein the waiter thread is a normal thread.

8. (Original): The method as recited in claim 1, wherein the daemon threads are created by remote method invocation code.

9. (Currently Amended): An apparatus for preventing premature shutdown of a virtual machine, comprising:

starting means for starting a waiter thread in the virtual machine;

registration means for registering daemon threads in a queue managed by the waiter thread;

monitoring means for monitoring, by the waiter thread, the daemon threads running in the virtual machine by the waiter thread registered in the queue managed by the waiter thread; and

preventing means for preventing shutdown of the virtual machine so long as any of the monitored daemon threads are running in the virtual machine.

~~10. (Canceled)~~

11. (Currently Amended): The apparatus as recited in claim ~~[[10]]~~ 9, further comprising:

means, responsive to a first daemon thread becoming inactive, for searching for other inactive daemon threads registered in the queue.

12. (Currently Amended): The apparatus as recited in claim ~~[[10]]~~ 9, further comprising:

means for appending the new daemon thread to the end of the queue, responsive to a new daemon thread being created.

13. (Currently Amended): The apparatus as recited in claim [[10]] 9, further comprising:  
determination means for determining whether the queue is empty; and  
~~waiting means for waiting for the virtual machine to shut down or for a new~~  
~~daemon thread to be created;~~ means for terminating the waiter thread if the queue is  
empty.

14. (Currently Amended): The apparatus as recited in claim 13, ~~further comprising:~~  
~~means for adding, if a new daemon thread is created, the new daemon thread to~~  
~~the queue wherein the virtual machine shuts down in response to termination of the~~  
~~waiter thread.~~

15. (Original): The apparatus as recited in claim 9, wherein the waiter thread is a normal  
thread.

16. (Original): The apparatus as recited in claim 9, wherein the daemon threads are  
created by remote method invocation code.

17. (Currently Amended): A computer program product, in a computer readable  
medium, for preventing premature shutdown of a virtual machine, comprising:  
first instructions for starting a waiter thread in the virtual machine;  
second instructions for registering daemon threads in a queue managed by the  
waiter thread;  
~~second~~ third instructions for monitoring, by the waiter thread, the daemon threads  
~~running in the virtual machine by the waiter thread~~ registered in the queue managed by  
the waiter thread; and  
[[third]] fourth instructions for preventing shutdown of the virtual machine so  
long as any of the monitored daemon threads are running in the virtual machine.

18. (Canceled)

19. (Currently Amended): The computer program product as recited in claim [[18]] 17, further comprising:

fifth instructions for responsive to a first daemon thread becoming inactive, searching for other inactive daemon threads registered in the queue.

20. (Currently Amended): The computer program product as recited in claim [[18]] 17, further comprising:

sixth instructions for determining whether the queue is empty; and

seventh instructions for ~~waiting for the virtual machine to shut down or for a new daemon thread to be created~~ terminating of the waiter thread if the queue is empty.